

specific task. Once the task is complete, the workflow software ensures that the individuals responsible for the next task are notified and receive the data they need to execute their stage of the process.

A workgroup is a collection of individuals working  
5 together on a task. Workgroup computing occurs when all the individuals have computers connected to a network that allows them to send email to one another, share data files, and schedule meetings. Sophisticated workgroup systems allow users to define workflows so that data is automatically forwarded to appropriate people at each  
10 stage of a process.

A script is a special-purpose command language used to automate sequences within an application such as a spreadsheet or word processor. Macro languages often include programming controls (IF THEN, GOTO, WHILE, etc.), but rarely have the capabilities of a  
15 full-blown programming language. Another term for macro or batch file, a script is a list of commands that can be executed without user interaction ([www.webopedia.com](http://www.webopedia.com)).

As noted in US Patent 5,960,404 (Chaar et al.), workflow systems are essential to organizations that need to automate their  
20 business processes. Workflow systems allow organizations to specify, execute, and monitor their business processes in an efficient manner over enterprise-level networks. This has the net effect of improved throughput of processes, better utilization of organizational resources, and improved tracking of processes.

25 Many workflow systems are commercially available. Even though many workflow systems exist, interoperability across these

systems is a technical problem. The systems are monolithic and proprietary, and workflows cannot extend beyond a single workflow system. To solve this problem, the Workflow Management coalition (WfMC), an industry-wide consortium of major workflow system vendors, has defined a standard workflow architecture, described in the document "The Workflow Reference Model" (WFMC-TC-1003). The model defines the major components of a workflow system and a set of interfaces between workflow system components. The major components it describes are a Process Definition or Builder Tool to capture business process logic in a high-level notation; a Workflow Server that acts as the nerve center of the workflow system; Workflow Clients that are used by users to view and interact with the contents of their worklists; Workflow Applications that are invoked by the workflow server to perform automated activities; and finally, Administration & Monitoring Tools used to administer the execution and monitor the status of work flowing through the workflow system using Audit Data.

The WfMC Reference Model also defines interfaces between these components. Interface 1 (builder-server interface) defines a common process definition format for the interchange of static process specifications between a Process Definition Tool and a Workflow Server (WFMC-WG01-1000). Interface 2 (client-server interface) defines an API that provides a complete range of interactions between a Workflow Client and a Workflow Server (WFMC-TC-1009). These include worklist interaction, query and control of workflow processes and their activities, and administrative

functions. Interface 3 (application invocation interface) is intended to describe how applications are invoked. Interface 4 (server-server interface) defines an API that describes the interactions between two Workflow Servers (WFMC-TC-1012). Interactions include initiation, query and control of workflow processes and their activities, and administrative functions. Finally, Interface 5 (monitor-server interface) defines audit data for administrating and monitoring a Workflow Server (WFMC-TC-1015).

Workflow typically involves processing documents created by capturing devices, such as a scanner or a facsimile (fax). When a user wants to process documents created by capturing devices, they typically run applications such as 'Flow Manager'. These capturing devices can be configured to send the captured data, or documents to a specific folder in the users computer. Even though these workflow applications can be configured to watch some folders on the users personal computer (PC) or computer workstation, it does not allow the user to run different scripts on different folders. To overcome this problem the user must run multiple instances of these applications. This is inconvenient, and in some applications impossible because the application may not permit the user to run multiple instances.

Recent versions of Windows permit users to customize a folder by using scripts, but these scripts are run only when the user has the folders opened. Applications such as Flow Manager can be configured to watch folders for files that are being created. But these applications run the same script on all the watched folders.